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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,788	09/30/2003	Walter E. Donovan	NVIDP030A	8349
28875	7590	10/06/2005	EXAMINER	
Zilka-Kotab, PC P.O. BOX 721120 SAN JOSE, CA 95172-1120			JANKUS, ALMIS R	
			ART UNIT	PAPER NUMBER
			2672	
DATE MAILED: 10/06/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/676,788	<b>Applicant(s)</b> DONOVAN ET AL.	
	<b>Examiner</b> Almis R. Jankus	<b>Art Unit</b> 2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 29-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 9-12, 15 and 29-44 is/are rejected.
- 7) ☒ Claim(s) 5-8, 13, 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Applicant's amendments and response have been fully considered in preparing this Office Action.

2. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

3. Claims 1-4, 9-12, and 15 stand rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-4, 5-8, and 9 respectively, of prior U.S. Patent No. 6593923. This is a double patenting rejection.

Claims 1-4, 9-12, and 15 are identical to claims 1-4, 5-8, and 9 respectively of prior U.S. Patent No. 6593923.

Although the wording of some claims may vary slightly, the claim scopes are identical.

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4. Claims 30, 31, 33, 34, 36, 37, 39, 40 and 44 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 7, 8, 9, 10, 17, 18, 19, 20 and 9 respectively, of prior U.S. Patent No. 6690372. This is a double patenting rejection.

The rejected claims depend from other claims; however, after including all of the limitations of the claims from which these depend, they are identical to the above patent claims.

Although the wording of some claims may vary slightly, the claim scopes are identical.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1-4, 9-12, 15, 29, 32, 35, 38, and 41-43 are rejected under 35 U.S.C. 102(a) as being anticipated by Woo et al.

With respect to claim 1, Woo et al. teaches the claimed (a) performing an offset operation to generate a depth value while rendering a primitive, at page 250; (b)

identifying a value of a slope associated with a primitive, at pages 251-252; and (c) conditionally clamping the depth value based on the value of the slope, at pages 251-253.

Claim 10 is similar to claim 1 but further requires a code segment for performing the various operations. Woo et al. Teaches this at pages 250-253.

Claim 15 is similar to claim 1 but further requires a logic for performing the various operations. Woo et al. Teaches this at pages 250-253.

With respect to claim 29, Woo et al. teaches the claimed (a) performing a first shading calculation in order to generate output, at page 422 figure 9-13, "texture image 0"; (b) saving the output, at page 422 with the teaching of "where each texture unit performs a single texturing operation and successively passes its result onto the next texture unit"; and (c) performing a second shading calculation using the output in order to generate further output, at page 422 figure 9-13, "texture image 1". With respect to a single shader unit, the shader unit composites the various texture images, thus there is only one shader with multiple texture units.

Claims 35 and 41 are similar to claim 29 but further require a code segment and logic respectively. Woo et al. Teaches both code segments and logic through their Guide.

Claim 2 depends from claim 1 and further requires the shadow mapping process to include rendering the primitive from a light space perspective. Woo et al. teaches this at pages 583-584.

Claim 3 depends from claim 1 and further requires the depth value to be clamped if the value of the slope is greater than a predetermined amount. Woo et al. teaches this at page 252 with the teaching of a nonzero value for factor.

Claim 4 depends from claim 1 and further requires the clamping to include the steps of: identifying vertex depth values of vertices of the primitive, comparing at least one of the vertex depth values with the depth value generated by the offset operation, and clamping the depth value generated by the offset operation based on the comparison. Woo et al. teaches this at page 251.

Claim 9 depends from claim 1 and further requires the offset operation to include a polygon offset operation in accordance with the OpenGL® programming language. Woo et al. teaches the OpenGL programming language.

Claim 11 is similar to claim 3 and is rejected under similar respective rationale.

Claim 12 is similar to claim 4 and is rejected under similar respective rationale.

Claim 32 depends from claim 29 and further requires the first and second shading calculations together to include a diffuse color variable, a specular color variable, and an ambient color variable. Woo et al. Teaches this at pages 211-218.

Claim 38 is similar to claim 32 and is rejected under similar respective rationale.

Claim 42 further requires the shading calculations to involve shadow modulation. Woo et al. Teaches this at pages 211-218.

Claim 43 further requires the shadow modulation to involve more than one function. Woo et al. Teaches this at pages 211-218.

7. Applicant's arguments filed 07/07/05 have been fully considered but they are not persuasive. With respect to the double patenting rejection, the offset operation is disclosed only in association with rendering a primitive, therefore eliminating that association as a limitation does not change the meaning of the claims.

With respect to the limitation of utilizing a single shader unit, no other alternative is disclosed, therefore this limitation is inherent to the disclosure. Further, Woo et al. does not disclose multiple shaders, thus, a single shader is inherent. With respect to the limitation of conditionally clamping the depth value based on the value of the slope, Woo et al. teach this at pages 250-253. With respect to the limitation of clamping

conditionally, all clamping is conditional by definition, for example limiting a value if it exceeds some threshold. The term "if" makes it conditional.

8. Claims 5-8, 13, 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

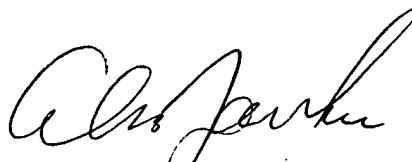


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Almis R. Jankus whose telephone number is 571-272-7643. The examiner can normally be reached on M-F, 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 571-272-7664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AJ



ALMIS R. JANKUS  
PRIMARY EXAMINER